

[FRONT OPENING UNIFIED POD DOOR OPENER WITH DUST- PROOF DEVICE]

Abstract of Disclosure

A front opening unified pod (FOUP) with a dust-proof device that is set up beside a station for processing 12-inch wafers. The FOUP door opener opens up to allow wafers going to or from the FOUP while preventing external dust particles from diffusing into the station. The FOUP door opener includes an inner door and an outer door. The dust-proofing device is set up close to the FOUP door opener next to a nitrogen load-lock area inside the station. The dust-proofing device has a gas pump for pumping gases, a gas filter connected to the gas outlet port of the gas pump for removing dust particles, a gas outflow unit connected to the gas outlet port of the gas filter for blowing a layer of laminar gas and a gas inflow unit connected to the gas inlet port of the gas pump so that gas blown out from the gas outflow unit is returned to the gas pump via the gas inflow unit. The FOUP door opener prevents dust particles from contaminating the loading area of the furnace while using very little nitrogen.

Figures